

Figure S1. Quantification of the mean thickness (calculated as the mean of apical, basal, and lateral measurements taken perpendicular to the surface of the mesh fiber) of capsule surrounding mesh fibers at 90 days (3 different single fibers per sample, N = 8 each group) in images taken from histological tissue sections stained with Masson's Trichrome.

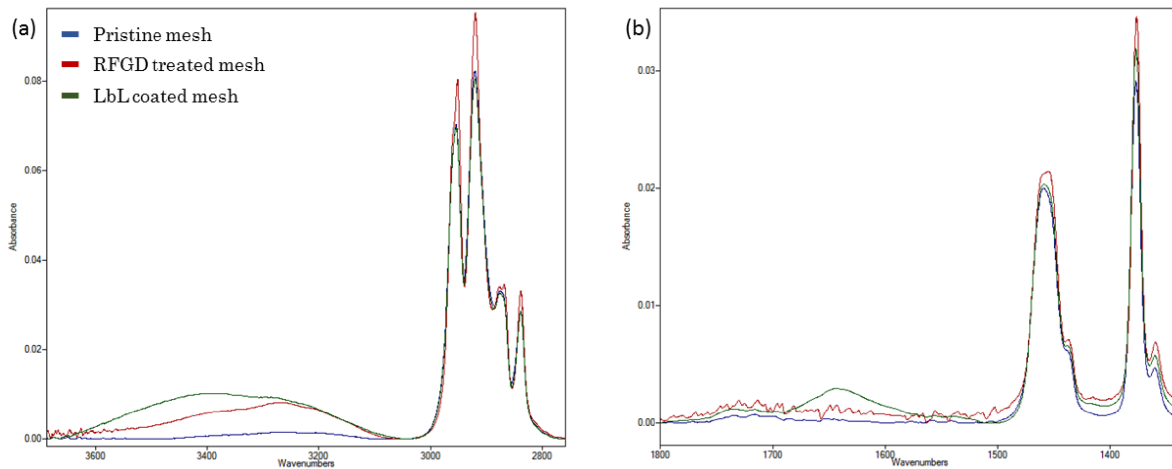


Figure S2. Attenuated total reflectance – Fourier transform infrared (ATR-FTIR) spectra of pristine (blue), RFGD treated (red) and LbL coated (green) meshes.

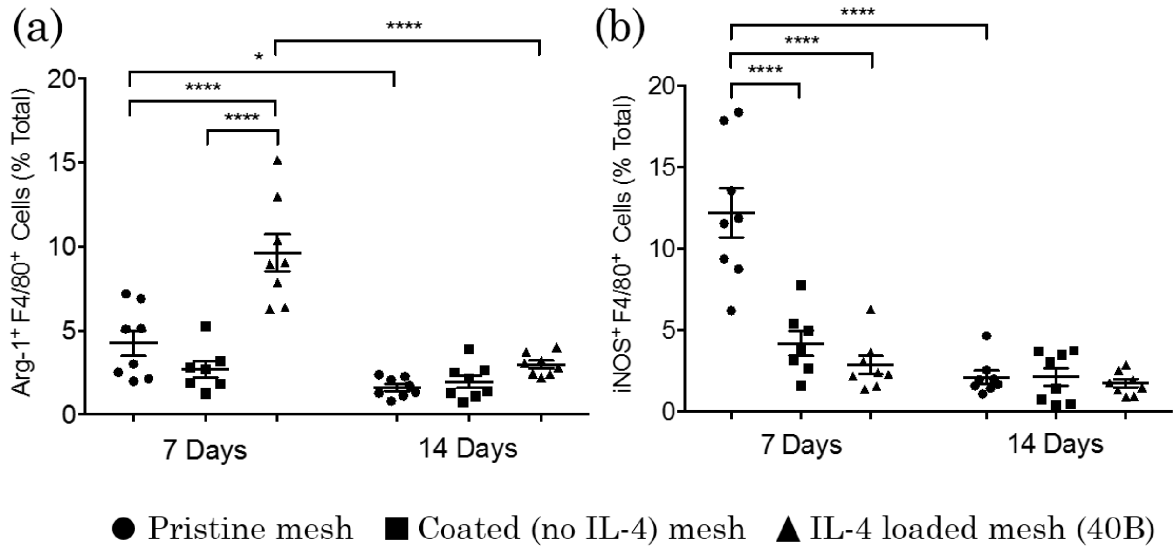


Figure S3. Image analysis of (a) Arg-1⁺ F4/80⁺ cells and (b) iNOS⁺ F4/80⁺ cells as percentages of total cells (DAPI) surrounding single mesh fibers of tissue cross sections of mice implanted with a 1 cm² piece of pristine, coated (no IL-4) and IL-4 loaded (40B) mesh for 7 days and 14 days. Bars represent the mean \pm SEM (N = 8). Statistical significance as (*) p < 0.05 and (****) p < 0.0001, using two-way ANOVA with Tukey's (groups) and Sidak's (days) tests. All other differences are non-significant.

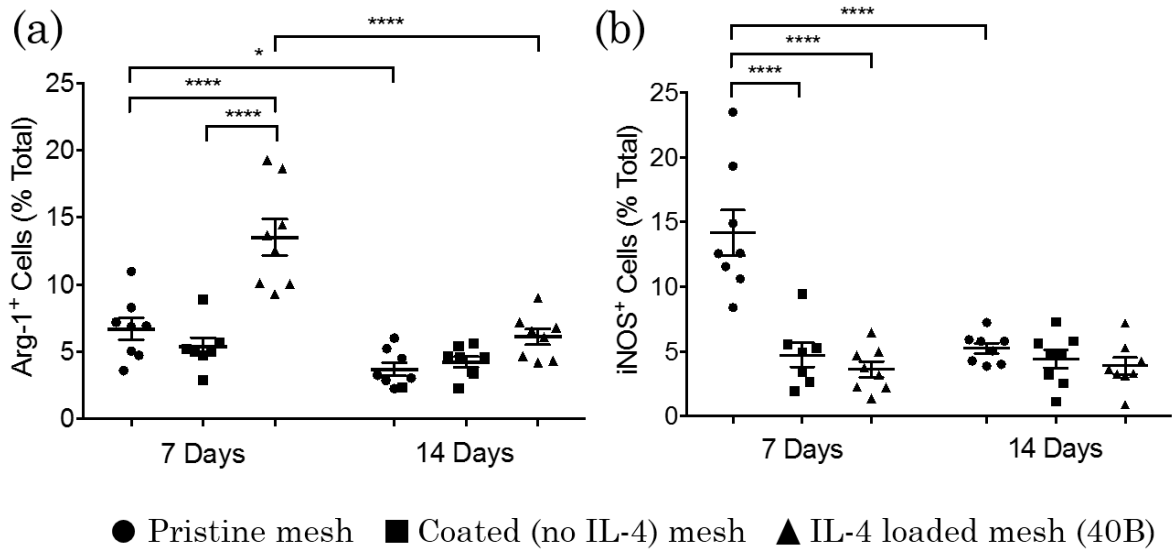


Figure S4. Image analysis of (a) Arg-1⁺ cells and (b) iNOS⁺ cells as percentages of total cells (DAPI) surrounding single mesh fibers of tissue cross sections of mice implanted with a 1 cm² piece of pristine, coated (no IL-4) and IL-4 loaded (40B) mesh for 7 days and 14 days. Bars represent the mean \pm SEM (N = 8). Statistical significance as (*) p < 0.05 and (****) p < 0.0001, using two-way ANOVA with Tukey's (groups) and Sidak's (days) tests. All other differences are non-significant.